

ATTACHMENT IX(A): ADDITIONAL SPECIFICATIONS

(a)

VESSEL REQUIREMENTS SUMMARY

	Description	Minimum (Threshold)	Best Value (Objective)
1	Performance		
1.1	Range Endurance distance	1,240	1,240 Nmi
1.2	Speed Sustained speed	33	33 Kts
1.3	Voyage length Endurance range	36	36 Hrs
2	Characteristics		
2.1	Draft Maximum @ Mean Low Water	16	16 Ft
2.2	Beam Maximum breadth	95	95 Ft
2.3	Motion Reduction System Classification Society	Equipped	Equipped
2.4	Hull coating Non-TBT		
3	Capacity		
3.1	Passengers		
3.11	Seats Aircraft style, 37 in. pitch & trays	965	1,250 # (see para 3.11)
3.12	Ventilation Air conditioning & ventilation	Equipped	Equipped
3.2	Cargo		
3.21	Deadweight Available for dry cargo (not pax)	300	300 ST
3.22	Deck area Clear deck space (including 15% broken stowage factor)	24,500	35,000 SqFt
3.23	Underdeck heights Clear height for vehicle cargo/percentage of area	between 6'6" and 15'	between 6'6" and 15' Ft & in
3.24	Deck strength Minimum distributed static deck load	300-425	300-425 Psf
4	Systems		
4.1	Ramps		
4.11	External ramp Ramp(s) w/traction devices	Stern	Bow & Stern
4.12	Length DELETED		
4.13	Width From curb to curb, area covered	12	12 Ft
4.14	Angle Maximum deployed	15	N/A Deg
4.2	Ground tackle		
4.21	Anchors Bow Port & Stbd	2	2

4.22	Windlasses	Bow Port & Stbd	2	2	
4.3	Helo capability				
4.31	Helo Landing Facility	For debarkation of personnel and light freight using military type H-1, CH-46, H-60 helos	USCG CFR/NVIC	NAVAIR Bulletin 1H	
4.32	Maneuvering Zone	Clear overhead area	100 ft. diameter and per USCG CFR/NVIC	NAVAIR Bulletin 1H	SqFt
4.4	Cargo Air and Water System	LP Air and Fresh Water for cargo support	2x LP air 2x FW	2x LP air 2x FW	
4.5	Water, potable	USCG/CDC compliant			
4.51	Tankage	Storage volume	3,750	5,000	Gals
4.52	Water maker	Production capacity	7,500	10,000	GPD
4.6	Heating, Air Conditioning and Ventilation (HVAC)	70 to 75 deg. F & 50% relative humidity in passenger space(s)			Same
	Ambient conditions	32 to 100 deg. F 80% relative humidity with 32 to 82 deg. F seawater temps			Same
4.61	Air Handlers	Air changes per hour	See paragraph 4.61 of the Detailed Vessel Requirements Narrative	See paragraph 4.61 of the Detailed Vessel Requirements Narrative	
4.7	Waste Handling Capacity (for longest voyage)				
4.71	Solid waste capacity	Lbs/day/person (by weight)	1.85	1.85	
4.711		CuFt/day/person (by volume)	0.38	0.38	
4.72	Sewage treatment system	See paragraph 4.72 of the Detailed Vessel Requirements Narrative		Same	
4.73	Trash Collection and Storage	Receptors, storage and handling			
4.8	Cargo Securing Equip.	Vehicle Lashing Assemblies (equipped)			
4.9	Electrical Power	Ships service electrical power, 50 or 60 Hz, Amps (equipped)			
4.91	Generator capacity				
5	Accommodations				
5.1	Hospital/sick bay	Medical exam table and treatment room equipment			
5.12	Cargo Office	Admin space with office furnished	equipped	equipped	

5.13	Ops room	Command and communications	equipped	equipped
5.2	Crew			
5.21	Accommodations	See paragraph 5.21 of the Detailed Vessel Requirements Narrative which follows.	equipped	equipped
5.22	Supercargoes	Bunks	12	12
5.3	Passenger Support			
5.31	Food service	Prepared foods equipment (ovens)	equipped	equipped
5.32	Food storage	Freeze and cold storage capacity	Installed & 1 Reefer container	Installed & 1 Reefer container
5.33	Lounge	Common area, tables / chairs	8 / 32	8/32
5.34	Washrooms	Common area, sinks / showers	6 / 6	6 / 12
5.35	Heads	Male and female, toilets	4 spaces total 19 male +1 female toilet	above
6	U.S. Flag Vessels			
6.1	VISA Program	US Flag vessels must be VISA enrolled no later than 15 February 2003.	Certified	Certified
6.2	SCA/DoL Wage Determination	US Flag/Crewed vessels must observe SCA/DoL standards as applicable	Compliance	Compliance

DETAILED VESSEL REQUIREMENTS

1. Performance

1.1 Range. The Vessel shall have a minimum operating range of 1,240 nautical miles (Nmi) at thirty-three (33) knots when fully laden with mission cargo in conditions of moderate weather. Vessel shall have sufficient bunkers and lube oil to complete a voyage not less than the threshold distance at warranted speed, with a 20 percent fuel reserve.

1.2 Speed. The Vessel shall be capable of maintaining an average speed of thirty-three (33) knots in moderate weather when fully laden with mission cargo.

1.2.1 Vessel shall warrant not less than the stated sustained speed at ninety percent (90%) of Maximum Continuous Rating (MCR) of the propulsion system.

1.3 Voyage length. Vessel shall have a range of not less than 36 hours steaming.

2. Characteristics

2.1 Draft. The Vessel shall be able to moor in water depths of 16 feet at its maximum draft forward while loaded.

2.2 Beam. Vessel's beam shall not exceed 95 ft.

2.3 Motion Reduction System. The Vessel shall have a Classification Society Approved Device that limits the effects of sea state on passengers.

2.4 Vessel must be delivered with an anti-fouling hull coating that does not contain a biocide using Tributyl Tin (TBT) salts.

3. Capacity.

3.1 Passengers. The Vessel shall carry a minimum of 965 Govt. sponsored personnel (200 Lbs. each) in passenger spaces that have specific seating and ventilation requirements as stated below. The Vessel shall have storage space for each passenger's seabag (110 Lbs. each) and sufficient storage for one personal-size/carry-on type bag). The Vessel shall have all equipment required by IMO HSC for passenger safety.

3.11 Seats. The Vessel shall be equipped with aircraft-style seats that have not less than a 37-inch pitch. Seats shall be capable of reclining and equipped with trays attached to the seats ahead. Objective requirement is for "first class" seats greater than 40-in pitch and greater than 20 inch width that recline at least 10 inches. Monitors linked to the ship's closed circuit TV system shall be visible from all seats.

3.11.1 Owner to provide spare seat covers with the vessel. All seated passengers shall be within view of a closed-circuit television monitor.

3.12 Air Conditioning. Air conditioning system will maintain a constant temperature of 70-75 degrees F in the passenger seating area with 50 percent relative humidity while operating in ambient conditions of 32 to 100 degrees F and 80 percent Relative Humidity with seawater temps of 32 to 82 degrees F. The minimum fresh air component in the passenger seating area must be 25 percent.

3.2 Cargo. The Vessel shall be self-sustaining for the discharge/loading of mission cargo while alongside a pier. The longest cargo vehicle intended for carriage is a Logistics Vehicle System (LVS) Mk48 tractor/power unit, plus Mk16 5th wheel, plus low bed trailer M870, which is 75 ft long. That vehicle with a Caterpillar D7 bulldozer on the trailer is the heaviest load, which weighs 55.5 ST. That vehicle is also used to carry ISO containers. The tallest cargo item is a CH-46 helicopter in reduced configuration that is 158 inches high. The helos require 15 ft. underdeck height. Stowage of these vehicles constitutes the critical vehicle parameters. The Owners shall warrant that the Vessel is capable of carrying these vehicles. Typical cargo consist includes the following:

TABLE 3.2.1
TYPICAL CARGO CONSIST

Ground Elements		Air Elements	
48	HMMWV "Hummers"	4	AH-1W Attack helos
6	M102 Trailers	3	UH-1H Utility helos
30	QUADCON ¼ 1CC ISO Containers	25	463L Air cargo pallets
4	M105/353 type Trailers	4	Aircraft tugs
8	M55 5 ton Trucks		3000 SqFt misc.aircraft gear
1	Rough Terrain Forklifts		
Pax	965	Pax	400 to 900

Notes:

(1) Minimum vertical clearance includes a 6-inch minimum clearance between the highest point of the vehicles and the lowest obstruction below the overhead deck. This 6-inch clearance does not include deck deflection or any raised deck fittings or other items that reduce available vertical clearance.

(2) The cargo stowage areas where vehicles are stowed shall be considered to be RO/RO cargo spaces for the purposes of SOLAS fire integrity.

3.21 Deadweight. The Vessel shall have a minimum deadweight of 300 short tons available for dry cargo (not passengers). The Owner shall warrant that the Vessel is capable of lifting the minimum deadweight tonnage at maximum sustained speed to the required range

3.22 Deck area. Usable Cargo Stowage Area is the total deck area in square feet on the Vessel where vehicles can be stowed using tie-downs, and includes those decks and ramps which meet the minimum vertical clearance described above. Vehicle decks shall provide a minimum of 24,500 square feet of clear stowage area. The Broken Stow Factor is assumed to be 15%.

3.22.1 Maneuverability. The arrangement of Cargo Stowage Areas that are used for vehicle stowage and vehicle accesses shall permit the vehicles listed in section 3.2 to transit from both the forward and aft extremities of the deck on which the vehicle is stowed to the foot of the ship's external ramp without backing. In Cargo Stowage Areas, structural stanchions between fixed decks shall be arranged to minimize interference with vehicle flow and maneuvering. In general, the number of stanchions shall be the minimum practical and eliminate or greatly reduce backing or maneuvering of vehicles with towed loads.

3.23 Underdeck heights. The Vessel shall have vehicle cargo decks whose deck area and underdeck height is not less than that 6 ft. 6 in. for light vehicles, not less than 9 ft. for most vehicles, and not less than 15 ft. for tall vehicles while still maintaining a minimum of 6 inches clearance. Not less than 10% shall be suitable for tall (15 ft.) cargo.

3.24 Deck strength. The Vessel will have deck strength sufficient to load the 60% of the available decks with 300 Psf Distributed Static Deck Loads and 40% of the available decks with 425 Psf Distributed Static Deck Loads.

4. Systems

4.1 External Ramp(s). The Vessel shall be fitted with fixed or slewing stern ramp(s) that can operate from the vessel's main deck down to a pier head with a height of 4 ft above the water level while not exceeding a maximum ramp angle of 15 degrees. The ramp system may not decrease the ship's cargo deadweight and clear deck space. A readily available alternate method of raising and lowering the ramp must be integral to the operating system. The ramp(s) shall be fitted with fixed traction devices that assist in tracked and wheeled vehicle operations when the ramp is dirty, oily or wet. Traction devices must be made of metal attached to the ramp surface. The design, pattern and installation are at the Owner's discretion, but must be warranted as effective.

4.11 Characteristics. The Ramp system shall be capable of unassisted deploying and stowing the ramp, opening and closing the external door, and performing RO/RO operations when the ship has an adverse list up to 5 degrees.

The angle of any ramp section shall not exceed 15 degrees relative to the waterline for this range of operating conditions.

The ramp shall have a clear roadway width of not less than 12 feet.

Wheel loads shall be the highest wheel load of any vehicle intended for use on the ramp.

When operating pierside, the ramp system shall include an allowance for fenders between the ship and the pier.

Ratings and capacities of the ramp shall be conspicuously painted and outlined in weld bead.

4.11.1 System Operation and Controls. The stern ramp(s) shall be deployed and retrieved through a manually initiated automatic sequence. Deployment and retrieval controls for a stern ramp shall be provided in a "deadman" configuration. The ship's cargo cranes may be used for deployment and retrieval of a sideport ramp. The ramp control system shall be located where there is good visibility of ramp and external door operations. The control system station(s) shall permit one person operation of the ship's external ramp and external door. The ramp and external door shall function as an integrated system.

4.12 Length.

4.13 Width. All vehicle ramps on the Vessel shall be at least 12 feet wide between curbs.

4.14 Angle. No vehicle ramp on the Vessel shall exceed 15 degrees angle off baseline.

4.2 Ground tackle

4.21 Anchors. The Vessel shall be fitted with anchors both port and starboard on the bow.

4.22 Windlasses. The Vessel shall be fitted with at least two mooring windlass/winches, both port and starboard on the bow. The Vessel shall be capable of mooring Mediterranean style either foreword or aft. The windlass(es) shall be capable of retrieving anchor chain from a water depth of 100 fathoms. The windlass(es) shall be capable of hoisting the anchor and chain at a depth of 30 fathoms at a speed of not less than 30 feet per minute.

4.3 Helo capability

4.31 Helicopter Landing Facility. To meet the Threshold, the Vessel shall be equipped with a helicopter landing facility conforming to USCG regulations in 46 CFR Part 108 as amplified by USCG NVIC No. 9-81. The facility shall be sized and equipped to hover US military helos of the H-1, CH-46 and H-60 types. The crew shall follow the guidelines in the International Chamber of Shipping publication "Guide to Helicopter Ship Operations." For the Vessel to meet the Objective, the Owner must meet all the requirements of NAVAIR Bulletin 1H (or current edition) Air Capable Ship Aviation Facilities. Those requirements include design, construction, and outfitting details that require coordination with COMNAVAIRSYSCOM. MSC will assist the Owner, but cannot override NAVAIR guidelines. The Government will provide a landing signalman and helicopter control officer in support of air operations, as provided for in NAVAIR bulletin 1H.

4.32 Maneuvering Zone. The Vessel must have a clear deck of sufficient size for stated helo types. The maneuvering zone can be determined from Table 4 and Figure 3 of NAVAIR Bulletin 1H.

4.4 Low Pressure (LP) Air and Fresh Water Fittings

The Vessel's vehicle deck will be equipped with a minimum of two LP (90 to 100 Psi.) air fittings per vehicle deck and two spigots (one each port and stbd) providing 25 psi. fresh water to support cargo cleaning and maintenance actions.

4.5 Potable Water

4.51 Tankage. The Vessel shall have potable water tanks conforming to USCG and US Center for Disease Control (formerly Public Health Service) rules of at least 3750 gallons.

4.52 Watermaker. The Vessel shall have the capacity to produce 7500 gallons of water per day at anchor in tropical waters (avg. seawater temp 83 deg. F) in an approved system.

4.6 Heating, air conditioning and Ventilation (HVAC). The assumed ambient conditions for all HVAC calculations are: 32 to 100 deg. F at 80% relative humidity with 32 to 82 deg. F seawater temps.

4.61 The Vessel shall be fitted with an HVAC system which provides a minimum of 20 air changes per hour to the Cargo Space when loading or discharging vehicles and cargo and provides a minimum of 10 air changes per hour changes to the Cargo Space while underway.

4.7 Waste Handling Capacity (for longest voyage)

4.71 Solid waste capability. The Vessel shall be equipped with equipment to handle all solid dry wastes generated by crew and passengers while on its voyage.

4.72 Sewage treatment system. The Vessel shall be fitted with an approved waste disposal system, or an approved sewage collection and holding tank.

4.73 Trash Collection and Storage. Vessel shall contain sufficient means of trash and waste collection, containment, and stowage generated by all accommodated U.S. Government-sponsored personnel and supercargo while vessel is underway (for transits up to 36hrs).

4.8 Cargo Securing Equipment. Cargo carried may include vehicles with diesel fuel in their tanks; containers with mechanical equipment, medical supplies, perishable rations, and limited quantities of ammunition. The Vessel will be equipped with cargo tie-down point sufficient to stow the cargo identified using cloverleaf sockets, D-rings or other installed fixed attachments. All cargo will be secured in accordance with an IMO approved Cargo Securing Manual using lashing gear and Vehicle Lashing Assemblies (VLAs) comparable to US military lashing guidelines contained in MCMCTEA Reference 95-55-22 (copies are available for review/download at the following website <http://www.tea.army.mil/dpe/55-22.htm>).

4.9 Electric Plant

Power generation for ship's service power shall be provided by diesel or gas turbine generator sets. A separate diesel generator set shall provide emergency power generation. The electrical system frequency shall be 50 or 60 Hz.

4.91 Generators shall be capable of continuous operation in stated ambient conditions. The generator engines shall be rated for an ambient temperature of 100 degrees F and a relative humidity of 40 percent. The fuel consumption rate shall be warranted within plus or minus 3 percent corrected to standard conditions.

5. Accommodations

The Vessel shall be equipped with the following accommodation spaces that shall conform to 46 CFR Part 108.193 through 215. The Vessel shall have sleeping spaces, berths and lockers sufficient for the entire crew and 12 Government sponsored persons.

5.1 Hospital/sick bay. The hospital shall be equipped with a medical exam table and hospital bed.

5.12 Cargo Office. The Vessel shall have an office for the exclusive use of the Charterer, or other Govt. reps, which is equipped with standard office furniture, telephone and internal communications equipment and has adequate lighting, heating, air conditioning and ventilation.

5.13 Ops room. The Vessel shall have an office for the exclusive use of the Charterer, or other Govt. reps which is equipped with standard office furniture; has telephone lines and connection to interior and exterior communications equipment. Specifically, Operations personnel will be able to connect with the ship's INMARSAT system over voice, fax and data lines. The Ops room shall have adequate lighting, heating, air conditioning and ventilation for computers and electronic equipment. This room shall have access to and be able to transmit to a closed circuit television system.

5.2 Crew

5.21 Accommodations. The Crew will be provided sleeping spaces.

5.22 Supercargoes. The Vessel shall provide similar accommodations for 12 supercargoes.

5.3 Passenger Support

5.31 Food service. The Vessel shall be fitted with food service equipment to store and prepare pre-prepared meals to all Govt. Sponsored personnel. Such equipment shall include: heating ovens, ranges, refrigerators, freezers, utensils, beverage dispensers, and storage space as necessary.

5.32 Food storage. The Vessel shall be fitted with a both refrigerated storage and dry storage compartments in order to store sufficient provisions capable that will allow 3 meals per day (two hot meals, one cold meal) per passenger for periods up to 48 hours. At the Charterer's option, provisions may be stored in a refrigerated container stowed on the vehicle deck. The Vessel shall be equipped to provide electricity to one ISO standard 1C/1CC reefer freight container. A 460-volt, 32 amp (CEE-17 type) receptacle shall be provided for the refrigerated container.

5.33 Lounge. The Vessel shall be fitted with a common area for passenger use.

5.34 Washrooms. The Vessel shall be fitted with washrooms, including sinks and showers for passenger use.

5.35 Heads. The Vessel shall be fitted with a minimum of 19 toilets for male passengers and a minimum of 1 for female passengers.

6. Applicable to US Flag Vessels

6.1 VISA. US Flag vessels must be VISA enrolled no later than 15 February 2003.

6.2 SCA/DoL Wage Rates. Owner agrees to observe applicable SCA/DoL Wage Determination when in U.S. Waters.